

JAMAICA.

METEOROLOGICAL OBSERVATIONS.

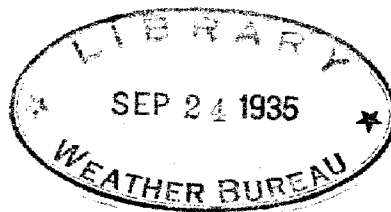
YEAR 1933.

The hours of observations are 7 a.m. and 3 p.m. The "Mean" refers to the day of 24 hours as deduced from these hours, (including the Maximum and Minimum Temperatures) for Tables at end.

Meridian of Longitude for calculation of time adopted as Standard in the Colony	..	..	75° W.
Hours slow of Greenwich Mean Time	..	..	5

KINGSTON.

Latitude	..	..	17° 58' N.
Longitude	..	..	76° 48' W.



QC
987
J25
M48
1933

National Oceanic and Atmospheric Administration

Climate Database Modernization Program

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LASON

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March 28, 2002

STATION—KINGSTON.

JANUARY, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point. Fah.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
1	Ins. .998	Ins. .948	° 71.3	° 83.2	° 85.7	° 70.5	° 66	° 70	% 85	% 65	N 10 S			8	
2	.984	.852	74.2	85.4	86.0	72.1	69	70	86	61	Calm	S.E.	9	10	5
3	.968	.905	70.3	85.2	86.4	69.3	64	69	83	58	N 5 S		8		2
4	.936	.864	68.3	89.9	89.9	67.8	63	67	84	45	N 3 S		10		
5	.938	.891	67.8	86.4	86.4	67.3	63	69	83	56	N.E. 2 S		10		2
6	.958	.888	67.3	87.2	88.0	66.5	60	71	79	59	N. 8 S		9		7
7	.967	.893	69.2	87.2	87.2	68.8	65	71	88	59	N. 4 S.E.		20	10	7
8	.946	.892	70.2	85.0	87.6	69.1	67	72	90	64	N. 4 S.E.		20	10	6
9	.956	.906	71.2	84.4	84.4	70.1	64	69	78	60	E. 3 S.E.		12	10	6
10	.977	.922	69.2	82.2	85.4	68.4	63	71	80	69	W. 6 S.E.		15	10	10
11	.984	.909	73.3	86.3	87.0	71.1	66	69	78	56	N. 8 S.E.		15	10	4
12	.951	.878	70.8	84.1	85.9	70.1	65	68	79	59	N. 2 S.E.		20	4	4
13	.957	.930	72.2	81.4	84.9	70.2	65	71	78	72	N. 2 S.E.		10	10	10
14	.975	.924	65.9	84.7	85.1	65.3	58	72	75	65	N. 3 S.E.		15		3
15	.008	.940	66.6	86.2	86.4	65.8	65	68	92	55	N. 6 S.		6		6
16	.013	.936	66.9	83.2	86.8	66.6	63	70	86	64	N. 5 S.		12		10
17	.002	.983	70.5	74.0	85.8	68.8	63	70	79	88	N. 6 N.		8	10	10
18	.993	.950	66.7	82.9	85.3	66.0	63	69	87	62	N. 4 S.		12		1
19	.015	.956	69.2	84.7	84.7	65.4	61	70	76	60	N. 6 S.E.		20	10	2
20	.028	.954	66.4	82.2	82.9	65.1	59	67	78	60	N. 3 S.E.		20	8	10
21	.005	.907	65.9	87.1	87.8	64.8	60	66	81	50	N.W. 2 S.E.		9	1	
22	.952	.892	68.7	85.7	85.7	66.9	63	62	81	46	N. 6 S.E.		30	10	8
23	.940	.892	68.7	86.2	87.9	67.7	62	65	77	50	N. 3 S.E.		20		8
24	.965	.920	70.1	81.5	84.4	69.1	63	67	80	63	N. 3 S.E.		20	4	10
25	.958	.900	67.2	83.0	84.7	65.7	60	69	79	63	N. 6 S.E.		15		6
26	.921	.856	68.0	82.2	84.0	67.3	63	70	86	67	N. 3 S.E.		8		10
27	.913	.852	67.9	85.2	85.4	67.1	62	68	80	55	N.E. 6 S.		15		
28	.894	.831	67.3	84.4	84.9	66.8	61	66	80	54	N. 3 S.		8		
29	.899	.856	67.6	83.8	84.3	66.6	64	70	88	64	N. 3 S.		8		
30	.934	.912	67.4	85.7	86.6	67.0	60	69	79	57	N. 6 S.		12		3
31	.004	.921	67.2	86.7	87.2	66.1	60	67	79	52	N. 6 S.E.		12		2
Mean	29.966	29.905	68.8	84.4	85.9	67.7	63	69	82	60	N. 4.4	S.E. 13.3	3.8	5.2	
Total															0.67

NOTE: See page 15 ((Foot note) as to elevation of Instruments, etc., for Kingston.

Rainfall somewhat below normal. Distant rain to northward and northeastward on two days, and to S.E. on 1 day.

STATION—KINGSTON.

FEBRUARY, 1933

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.			Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 a.m.	3 p.m.	Ins.
	Ins.	Ins.	°	°	°	°	°	°	%	%						
1	.010	.980	66.5	84.7	84.7	65.8	58	73	78	67	N.	6 S.E.	25	..	1	
2	.016	.949	67.2	83.0	84.9	65.7	62	70	84	67	N.	5 S.E.	24	..	7	
3	.976	.884	67.2	83.0	86.0	66.1	62	71	83	67	N.	5 S.E.	20	10	10	
4	.947	.881	70.2	82.7	85.2	69.1	63	70	80	64	N.	3 S.E.	20	10	10	
5	.007	.964	72.5	83.2	85.4	71.9	66	72	82	70	N.	5 S.E.	12	10	10	
6	.030	.964	68.8	89.2	89.3	68.1	65	66	88	47	N.	4 S.	10	9	8	
7	.031	.947	70.2	83.9	84.1	70.1	63	71	80	64	N.	5 S.E.	18	10	..	
8	.987	.946	66.2	84.2	85.2	65.2	57	69	74	60	N.E.	9 S.E.	25	..	..
9	.038	.002	66.1	87.4	87.7	65.1	59	68	79	54	N.W.	3 S.	6	..	8	
10	.027	.001	69.6	84.2	86.5	68.5	66	71	88	64	N.E.	5 S.E.	10	..	9	
11	.059	.018	69.7	84.2	85.4	68.7	64	71	82	65	N.	3 S.	8	..	8	
12	.025	.963	67.5	87.9	88.9	66.8	64	67	90	49	N.W.	3 S.E.	12	..	4	
13	.020	.990	68.3	85.5	87.2	67.8	63	70	86	61	N.	1 S.E.	18	..	3	
14	.072	.015	68.7	84.7	86.9	67.4	63	72	81	70	N.	1 S.E.	20	7	8	
15	.095	.036	71.2	84.0	84.5	69.1	64	66	78	56	N.W.	1 E.	25	9	9	
16	.037	.945	68.2	82.7	86.6	67.3	65	67	90	59	N.	4 S.	6	..	8	
17	.986	.919	66.1	83.6	85.2	65.4	59	67	79	58	N.	4 S.E.	20	..	..
18	.031	.974	69.2	84.2	86.0	68.1	59	66	72	54	N.	4 E.	30	..	..
19	.040	.973	67.9	83.4	85.3	66.6	61	67	76	59	N.	6 S.E.	20	..	2	
20	.993	.939	69.2	86.9	87.1	68.1	60	70	72	57	N.	4 S.	8	..	4	
21	.067	.990	69.2	89.0	89.5	68.8	65	67	87	49	N.W.	3 S.E.	12	..	2	
22	.063	.981	70.4	88.9	89.2	69.1	63	68	80	43	N.W.	3 S.E.	8	..	2	
23	.031	.967	67.2	86.7	88.2	65.4	59	72	76	62	N.	4 S.	12	..	10	
24	.022	.985	68.2	80.9	82.6	67.1	61	68	80	64	N.	3 W.	6	..	10	
25	.986	.919	68.4	80.6	85.6	67.6	65	70	89	69	N.W.	3 S.E.	20	10	10	
26	.923	.855	68.5	84.2	85.3	65.8	61	66	78	55	N.	5 S.E.	8	..	10	
27	.873	.845	69.2	83.2	84.0	65.7	63	68	80	60	N.E.	4 S.E.	8	..	10	
28	.881	.828	67.2	85.3	86.1	65.6	60	65	80	57	N.	4 S.E.	20	..	8	
Mean	30.010	29.950	68.5	84.7	86.2	67.4	62	69	81	59	N.	3.9 S.E.	15.4	2.7	6.0	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Nil.

There was no rainfall in February and such is of rare occurrence. During the last 63 years it occurred only twice; in 1897 and 1901. Distant lightning to northwards.

STATION—KINGSTON.

MARCH, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.871	.801	68.2	84.4	84.7	66.4	61	67	80	57	N.	2 S.	7	4	
2	.863	.812	68.7	82.5	84.7	66.3	58	67	66	62	N.	3 S.	6	9	10
3	.890	.834	68.4	85.3	85.8	67.2	61	68	79	57	N.	5 S.	8		
4	.929	.888	74.0	83.4	87.3	72.8	68	67	82	58	N.	12 S.	8	10	9
5	.975	.918	72.8	88.4	89.4	69.3	68	69	85	53	N.	4 S.	9	10	3
6	.974	.903	69.7	85.8	89.5	68.8	66	70	86	59	W.	4 S.E.	20		9
7	.941	.893	75.6	85.3	85.9	70.9	68	71	78	64	E.	15 S.E.	22		
8	.971	.920	73.0	85.2	85.7	71.3	68	70	82	61	N.	6 S.E.	25		
9	.985	.914	73.2	84.7	86.2	71.4	68	69	83	59	N.	5 S.E.	30		
10	.006	.980	70.7	83.7	85.4	68.3	62	68	73	59	N.	5 S.E.	20	9	10
11	.981	.910	67.3	89.2	91.2	67.2	61	65	82	45	N.W.	4 S.	9		10
12	.978	.938	72.4	81.2	84.5	71.1	66	69	79	67	N.	4 S.E.	15	10	10
13	.970	.942	67.8	75.7	84.3	65.7	65	74	89	92	N.	4 N.W.	8		0.07
14	.949	.879	69.9	82.7	85.2	66.6	64	70	81	66	N.	10 S.E.	20		10
15	.953	.917	73.4	86.2	87.4	70.1	67	69	80	56	N.	8 S.E.	22	10	3
16	.003	.956	72.6	83.4	85.5	70.6	68	71	83	67	N.	2 S.E.	28	10	7
17	.036	.975	72.2	84.3	85.3	69.1	64	69	75	61	N.	7 S.E.	22	10	2
18	.020	.944	69.7	79.0	82.8	67.7	63	67	77	66	N.	5 E.	12	2	10
19	.936	.836	69.2	83.2	84.6	65.6	61	66	75	57	N.	10 S.E.	24	3	0.43
20	.880	.831	71.9	83.5	83.7	70.9	71	70	95	67	N.	10 S.E.	16	3	0.02
21	.921	.900	77.3	84.2	84.5	75.4	69	71	77	64	S.E.	15 S.E.	16	10	0.05
22	.994	.961	72.0	83.2	85.4	68.8	65	70	78	64	S.E.	10 S.E.	14	10	10
23	.023	.990	68.9	84.3	84.6	67.1	63	72	83	67	N.	6 S.E.	8		1
24	.022	.932	71.0	87.8	88.0	69.2	65	74	81	62	N.	4 S.E.	10		1
25	.993	.915	73.9	90.3	90.3	70.8	68	66	81	44	N.	6 S.	6	10	3
26	.986	.953	74.0	85.2	86.5	70.7	67	70	78	60	N.	4 S.E.	20	1	3
27	.995	.973	71.2	84.9	86.4	67.2	59	70	68	61	N.	9 S.E.	12		
28	.989	.909	69.2	87.2	88.0	67.0	62	66	78	50	N.	4 W.	7		
29	.990	.931	71.5	86.3	87.9	69.1	62	68	74	54	N.	6 S.E.	6		10
30	.974	.951	72.3	81.7	85.2	69.1	64	73	75	73	N.	2 W.	3	10	0.15
31	.991	.964	70.5	74.3	83.1	68.9	68	74	93	99	N.	3 N.	8	2	0.10
Mean	29.967	29.914	71.4	84.1	86.1	69.1	65	69	80	62	N.	6.2 S.E.	14	2	5.0
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.82

Rainfall below normal. Distant rain to northward observed on 7 days, to N.E. on 3 days and to eastward on 1 day.

STATION—KINGSTON.

APRIL, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.990	.930	75.6	82.6	84.6	67.7	64	70	67	66	N.	6 S.E.	24	10	
2	.989	.889	72.7	83.4	86.3	69.5	68	70	85	65	S.E.	3 S.E.	26	10	2
3	.948	.877	72.7	83.7	85.0	69.9	68	71	83	65	N.	3 S.E.	20	10	2
4	.948	.861	77.2	84.4	86.0	71.7	68	71	74	64	S.E.	10 S.E.	24	10	
5	.951	.878	75.6	85.4	87.1	71.1	66	69	71	57	S.E.	12 S.E.	26	7	
6	.941	.887	73.9	84.9	85.9	70.0	65	71	73	62	S.E.	12 S.E.	22		
7	.947	.894	73.8	79.8	85.5	69.1	66	72	76	77	N.	6 S.E.	18	10	
8	.947	.880	73.2	80.4	84.8	71.1	68	72	85	77	N.	2 S.E.	10	9	10 0.01
9	.930	.885	72.7	83.8	85.0	68.4	68	70	83	62	N.	2 S.E.	15	3	9
10	.919	.849	73.2	84.1	85.2	68.8	67	70	81	62	N.W.	2 S.E.	18	10	
11	.923	.887	73.7	84.7	85.5	70.1	67	71	79	64	N.	1 S.E.	9	9	9
12	.931	.900	75.5	86.8	86.9	71.7	65	73	71	63	E.	3 S.E.	7	1	
13	.945	.871	75.2	91.4	92.3	71.4	68	69	79	49	E.	3 S.	10	1	
14	.926	.863	76.0	87.2	88.0	71.1	66	69	71	55	N.	5 S.E.	8		
15	.935	.848	74.9	84.7	87.1	71.4	66	72	75	65	N.	5 S.E.	17		
16	.935	.870	74.1	85.2	87.0	70.7	64	70	73	62	N.	3 S.E.	12	2	
17	.931	.868	74.5	85.8	86.5	69.9	65	70	75	58	N.	3 S.E.	10		
18	.933	.849	74.5	87.7	87.8	71.0	64	69	72	52	N.	8 S.	7	2	
19	.914	.848	75.2	86.5	87.8	70.6	64	67	70	54	N.E.	6 S.E.	15	2	
20	.892	.807	75.3	88.8	88.9	71.0	64	66	69	47	N.	5 S.E.	8	2	
21	.866	.848	74.3	85.3	87.3	69.8	63	69	67	58	N.	3 S.E.	10		
22	.884	.870	74.1	85.1	86.3	69.7	68	69	80	60	S.E.	5 S.	12	8	
23	.895	.868	75.2	85.3	86.6	70.1	66	69	73	60	S.E.	6 S.E.	10		
24	.891	.844	74.5	86.7	87.5	70.2	66	71	76	59	N.	2 S.E.	22	4	
25	.892	.849	73.4	86.7	90.6	72.0	62	75	69	68	S.E.	7 S.E.	9	4	5
26	.900	.881	77.2	86.1	87.5	74.0	69	75	78	70	S.E.	2 S.E.	10	10	
27	.965	.900	76.6	85.6	87.0	72.7	70	75	80	68	N.	1 S.E.	20	5	
28	.970	.900	77.2	85.9	87.5	72.4	69	73	77	65	S.E.	2 S.E.	10	5	
29	.918	.877	77.5	81.4	87.0	73.8	68	74	76	79	N.E.	2 S.W.	9	10	0.04
30	.898	.827	75.4	87.4	87.6	69.6	65	67	71	52	N.E.	9 S.E.	9	1	
Mean	29.928	29.870	74.8	85.2	86.9	70.7	66	70	75	62	E.N.E.4.6	S.E. 14.2	1.9	3.9	
Total															0.05

Rainfall much below normal (1.17 inch.)

STATION—KINGSTON.

MAY, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
	Ins.	Ins.	"	"	"	"	"	"	%	%					
1	.887	.827	74.3	84.5	87.0	67.6	59	67	60	57	N.E.	2 S.E.	10	1	1.56
2	.857	.807	74.2	85.2	82.2	68.8	68	71	82	64	N.E.	2 S.E.	12	4	
3	.862	.829	76.1	83.9	85.5	71.1	68	68	78	58	N.	2 S.	10	10	
4	.895	.883	73.7	86.1	87.0	68.3	62	73	65	65	N.E.	2 S.E.	16	2	
5	.971	.923	78.5	86.1	88.7	73.1	67	75	70	70	N.	4 S.E.	10	10	
6	.998	.912	79.2	84.9	88.7	74.0	70	73	74	67	N.E.	5 S.E.	20	10	0.06
7	.968	.880	78.2	86.0	87.8	73.3	71	72	80	64	N.	7 S.E.	20	1	
8	.931	.832	77.5	86.0	87.2	73.3	69	74	78	67	N.	2 S.E.	20	4	2
9	.943	.877	79.1	84.3	87.6	73.2	68	74	70	72	N.	2 S.E.	22	1	7
10	.958	.899	78.7	86.6	89.2	74.1	69	71	72	60	S.E.	2 S.E.	30	10	10
11	.978	.891	79.9	88.8	91.4	74.9	68	64	66	43	N.E.	6 S.E.	28	6	
12	.949	.890	78.3	86.9	88.8	73.5	66	71	66	58	N.W.	4 S.E.	30	10	
13	.910	.907	77.4	85.3	86.3	75.3	68	67	74	54	N.	4 S.E.	20	10	0.23
14	.939	.927	78.2	76.7	86.4	70.9	65	71	63	82	S.E.	18 S.E.	20	10	0.48
15	.970	.962	79.7	81.2	85.3	74.6	72	72	76	76	S.E.	20 S.E.	20	10	0.14
16	.977	.891	74.7	81.2	86.3	71.1	69	72	81	67	N.E.	6 S.E.	20	10	
17	.927	.870	76.4	86.2	86.7	70.3	67	70	73	58	N.E.	5 S.E.	18	10	
18	.926	.868	79.2	88.2	88.2	71.4	68	74	71	64	E.	5 S.E.	16	10	
19	.939	.862	79.9	87.7	88.4	73.6	71	73	74	61	E.	2 S.E.	20	4	
20	.930	.844	80.5	87.8	89.1	75.4	71	75	74	66	N.	4 S.E.	20	3	
21	.878	.831	81.7	86.7	88.9	75.4	72	75	71	67	N.E.	5 N.E.	25	8	
22	.874	.862	81.2	77.0	86.0	74.0	71	73	70	87	N.E.	4 N.W.	11	4	0.32
23	.858	.856	77.8	82.4	88.7	72.4	71	73	80	75	N.	3 S.E.	17	10	10
24	.909	.877	78.0	83.2	87.4	78.7	72	74	83	75	N.E.	2 S.E.	17	10	10
25	.899	.879	80.2	83.0	87.5	73.1	71	74	74	74	N.E.	2 S.E.	20	1	10
26	.881	.858	78.4	83.4	88.3	74.1	71	73	78	72	S.E.	4 S.E.	15	10	
27	.888	.831	80.7	82.0	88.2	74.3	71	74	73	76	E.	4 S.E.	15	10	
28	.867	.830	78.2	83.2	87.7	73.9	72	72	81	70	N.E.	4 S.E.	17	10	
29	.886	.845	78.3	85.7	88.6	74.5	71	75	78	70	S.E.	2 S.E.	12	10	
30	.891	.840	78.5	87.0	88.2	75.3	71	74	80	66	E.	2 S.E.	11	10	
31	.862	.816	81.2	83.7	87.6	76.1	74	76	80	66	S.E.	2 S.E.	8	4	0.06
Mean	29.916	29.869	78.3	84.6	87.7	73.2	69	72	74	67	E.N.E.4.5	S.E. 17.7	3.2	6.8	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2.85

Rainfall below the normal (4.02 inches). Distant rain to N. on 8 days N.E. 5 days and to N.W. on 3 days. S.E. wind continued after 7 p.m. on 11 occasions and throughout on the 15th. S.E. rain squalls on 14th and 15th.

STATION—KINGSTON.

JUNE, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.821	.794	81.1	84.0	86.4	76.1	75	72	84	69	E.	2 S.E.	8	10	1.17
2	.814	.800	76.3	77.5	82.7	73.6	76	76	100	94	S.E.	5 S.E.	4	10	0.68
3	.833	.821	76.4	84.0	84.4	73.8	75	67	96	57	N.E.	2 S.E.	8	10	0.28
4	.951	.804	78.1	85.2	86.1	74.2	74	77	89	77	W.	3 S.E.	12	8	3.22
5	.884	.832	73.3	83.0	83.9	70.7	73	76	99	80	N.	3 S.E.	18	10	4.27
6	.869	.874	57.2	82.7	84.3	74.6	75	77	99	82	S.E.	15 S.E.	8	10	0.71
7	.872	.857	78.4	84.9	85.8	76.1	74	74	87	71	S.E.	8 S.E.	15	10	0.02
8	.893	.851	78.2	81.3	86.7	74.3	72	75	82	83	S.E.	3 S.E.	20	1	8
8	.885	.836	79.6	85.5	88.0	73.2	74	74	81	71	S.E.	5 S.E.	20	4	10
10	.927	.896	74.7	84.1	87.4	71.3	73	71	93	64	N.	4 S.E.	15	3	10
11	.948	.910	78.2	87.2	88.9	72.7	68	67	71	67	N.E.	5 S.E.	27	..	..
12	.922	.893	78.2	73.3	87.4	71.9	68	72	73	97	N.	5 S.E.	3	..	10
13	.902	.855	75.9	84.2	86.6	70.2	69	75	80	74	N.W.	4 S.E.	20	7	8
14	.896	.861	78.2	86.2	86.9	71.6	71	76	78	72	S.E.	6 S.E.	15	..	9
15	.912	.862	77.2	81.2	88.2	72.9	72	71	84	73	S.E.	2 S.E.	8	..	10
16	.858	.850	77.8	82.5	88.4	73.1	72	73	81	74	N.E.	2 S.E.	13	..	10
17	.883	.849	74.6	81.7	83.7	72.1	71	78	88	87	S.E.	9 S.E.	15	10	10
18	.897	.881	75.5	83.3	87.2	73.3	72	73	91	72	N.E.	5 S.E.	17	10	10
19	.924	.886	78.0	86.3	87.2	73.2	71	75	80	69	N.E.	5 S.E.	20	8	7
20	.882	.860	78.7	86.8	87.6	72.8	71	76	76	70	E.	3 S.E.	20	..	10
21	.879	.866	79.2	87.3	87.7	72.7	71	74	76	65	N.E.	3 S.E.	17	10	..
22	.907	.839	78.2	88.5	88.9	73.8	72	77	82	69	S.E.	3 S.E.	15	5	3
23	.896	.863	79.8	86.2	88.1	75.7	76	75	88	71	S.E.	2 S.E.	20	2	8
24	.928	.867	78.7	88.0	89.2	75.6	73	75	82	67	S.E.	4 S.E.	24	7	..
25	.956	.908	81.2	89.2	90.2	77.2	72	72	76	59	N.W.	3 S.E.	15	7	..
26	.930	.897	80.9	87.3	90.7	74.6	72	76	74	71	S.E.	2 S.E.	24	..	..
27	.929	.917	77.9	85.2	86.4	77.9	73	74	84	70	S.E.	5 S.E.	15	10	10
28	.930	.919	77.2	82.5	89.8	72.1	70	73	80	74	S.E.	3 E.	12	4	10
29	.973	.914	77.4	86.2	90.1	71.3	70	73	80	65	N.	2 S.E.	15	..	6
30	.929	.847	79.1	86.1	91.2	73.8	71	68	77	55	W.	4 E.	5	9	10
Mean	29.901	29.864	77.8	84.4	87.3	73.5	72	74	84	72	ESE. 4.2	S.E. 14.9	5.5	7.0	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11.83

Rainfall over three times the normal (3.15 inches) giving the greatest fall for the month of June since 1915, when 14.51 inches were registered. Distant rain to N. 6 days., to N.E. 2, E.S.E. 1, S.E. 3, S. 1, and S.W. 1.

STATION—KINGSTON.

JULY, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.800	.820	76.7	77.2	80.0	72.2	72	75	84	93	E. 9	S.E. 20	10	10	1.12
2	.872	.903	80.8	84.7	86.3	75.5	72	74	74	70	S.E. 15	S.E. 17	10	10	0.05
3	.924	.954	81.0	79.4	86.2	77.8	75	75	81	86	S.E. 15	S.E. 12	10	10	0.07
4	.963	.954	81.4	85.6	87.4	78.8	75	75	80	69	S.E. 6	S.E. 15	10	10	0.02
5	.961	.930	77.3	85.7	87.5	72.1	72	75	85	71	N. 3	S.E. 15	6	10	0.02
6	.936	.868	78.9	86.5	88.4	72.9	71	71	76	60	N. 4	S.E. 13	..	10	
7	.901	.853	78.2	88.0	89.4	73.8	71	72	80	59	N. 6	S.E. 17	6	10	
8	.869	.865	82.2	90.4	91.1	76.6	71	73	69	58	S.E. 20	S.E. 20	10	..	
9	.971	.910	78.9	89.2	91.1	74.1	72	72	77	58	S.E. 3	S.E. 20	..	..
10	.957	.883	78.2	87.8	90.2	73.8	70	74	76	64	E. 3	S.E. 22	..	3	
11	.929	.874	76.4	90.0	91.2	74.8	68	72	78	56	N. 4	S.E. 20	8	9	
12	.944	.918	80.2	88.5	89.6	75.6	71	76	74	69	N.E. 3	S.E. 12	8	10	
13	.988	.952	78.0	87.6	90.2	74.4	71	77	80	69	N.E. 4	S.E. 14	8	10	
14	.968	.889	77.7	88.7	88.9	74.3	72	75	81	63	N. 2	S. 6	..	1	
15	.872	.835	78.9	85.7	89.6	74.6	74	76	84	72	S.E. 10	S.W. 6	..	10	0.46
16	.883	.882	74.7	82.3	82.9	72.7	74	73	97	75	S.E. 9	S.E. 8	10	10	1.33
17	.960	.959	70.2	73.2	74.2	70.1	70	73	99	99	N.E. 4	N.E. 2	10	10	6.45
18	.944	.975	71.8	80.5	87.2	70.2	71	73	96	79	N.E. 4	S.E. 20	10	10	0.33
19	.983	.950	74.0	84.5	87.6	71.6	72	76	92	76	N. 5	S.E. 12	10	10	
20	.958	.908	79.4	83.2	88.4	75.1	70	76	75	79	N.E. 4	S.E. 15	7	10	0.01
21	.927	.869	76.0	84.2	87.4	72.5	71	74	83	73	S.E. 4	S.E. 25	..	3	
22	.930	.901	76.2	85.2	87.9	72.5	70	74	82	70	N.E. 4	S.E. 20	..	8	
23	.977	.932	75.7	88.2	89.9	70.1	67	68	74	52	N.E. 7	S.E. 20	..	3	
24	.965	.920	76.0	89.9	92.4	69.3	65	68	68	48	N. 2	S.E. 20	..	2	
25	.928	.867	76.3	87.9	89.5	74.0	70	75	81	65	N. 2	S.E. 24	6	10	
26	.892	.837	76.0	88.2	89.1	71.6	68	76	78	67	N. 10	S.E. 9	3	..	
27	.863	.879	78.7	87.3	88.4	73.2	70	73	74	64	S.E. 4	S.E. 20	..	7	
28	.945	.949	77.7	87.3	88.5	74.1	73	74	84	66	N. 5	S.E. 20	10	8	
29	.005	.962	78.5	89.2	89.8	73.4	71	69	78	52	S.E. 4	S.E. 25	..	..
30	.004	.933	77.9	87.0	89.2	73.4	72	75	81	67	S.E. 3	S.E. 20	10	7	
31	.971	.945	77.2	83.7	88.2	73.1	69	75	78	73	N.E. 3	S.E. 12	10	10	
Mean	29.935	29.907	77.5	85.7	88.0	73.5	71	74	81	69	E. 5.8	S.E. 16.2	5.5	7.3	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9.86

Rainfall over six times the normal of 1.54 inch. This is the greatest fall in July for the past 63 years. Distant lightning to E.N.E. on 2 days. Distant thunderstorm to N. on 5 days. Intense local thunderstorm on 1st and 16th.

STATION—KINGSTON.

AUGUST, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ina.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.969	.925	77.7	84.3	88.4	74.0	71	75	80	74	S.E. 3	S.E. 21	..	10	
2	.947	.905	76.5	89.0	90.3	74.3	68	71	78	55	N.E. 3	S.E. 20	2	..	
3	.976	.893	79.2	89.8	90.6	76.1	70	69	74	51	S.E. 15	S.E. 20	10	10	0.10
4	.927	.861	77.7	88.5	89.5	73.5	70	71	76	58	N. 4	S.E. 20	..	8	0.03
5	.913	.874	75.9	86.7	88.9	75.0	73	76	91	69	S.E. 17	S.E. 20	10	10	0.02
6	.940	.948	77.9	84.0	87.7	75.3	74	74	86	73	S.E. 4	S.E. 18	2	10	
7	.935	.934	76.4	83.4	90.2	74.1	71	77	83	81	N.E. 4	S.E. 20	10	10	
8	.921	.888	78.2	84.2	89.9	73.4	72	76	79	78	N.E. 3	S.E. 20	10	10	
9	.915	.913	78.2	84.2	88.0	74.0	72	75	82	73	N.E. 2	S.E. 9	2	10	
10	.966	.926	75.4	88.0	88.6	72.5	71	74	85	64	N. 3	S.E. 9	9	9	
11	.967	.930	79.2	86.7	89.0	73.9	70	76	74	70	N.E. 8	S.E. 20	..	10	
12	.948	.909	76.9	84.0	90.8	73.8	71	75	83	75	N.E. 4	S.E. 23	2	10	
13	.969	.946	76.6	82.2	89.8	73.4	71	74	81	73	N.E. 5	N. 12	10	10	
14	.926	.933	79.1	80.2	88.5	72.7	71	70	75	72	N.W. 3	N. 8	10	10	
15	.892	.846	76.2	75.7	80.4	72.8	71	75	83	95	N. 2	E. 5	10	10	11.60
16	.896	.880	78.6	84.5	85.9	71.3	77	75	94	74	S.E. 20	S.E. 20	10	10	
17	.923	.881	73.2	84.7	86.3	69.7	68	73	84	68	N. 4	S. 12	10	10	
18	.861	.848	75.0	86.2	88.3	71.3	70	74	84	66	N.E. 3	S.E. 9	..	10	0.03
19	.868	.859	75.8	85.5	87.4	74.1	72	75	89	73	S. 9	S.E. 15	10	10	
20	.869	.844	77.0	77.7	87.2	73.7	72	76	85	92	N.E. 3	N.E. 6	..	10	0.05
21	.843	.805	77.2	77.1	87.3	73.0	73	76	86	95	N.E. 3	N. 5	..	10	0.27
22	.784	.762	76.0	82.7	85.8	73.1	75	74	92	74	N.E. 3	S.E. 7	10	10	0.62
23	.822	.828	74.2	83.2	84.0	71.6	74	75	99	76	S.E. 3	S.E. 12	10	10	0.43
24	.848	.807	75.7	85.0	86.5	73.3	74	75	93	73	N. 2	S. 4	10	10	
25	.808	.829	76.2	80.6	84.6	72.6	72	77	89	87	N.E. 3	N.E. 3	..	10	0.15
26	.883	.889	74.0	85.6	87.0	72.1	71	76	89	72	N. 2	S.E. 17	2	10	
27	.925	.916	77.2	80.5	89.9	73.1	72	72	85	77	N.E. 4	N.E. 6	..	10	
28	.888	.874	77.2	83.5	89.2	73.0	73	77	87	83	N. 1	N.E. 5	10	10	
29	.902	.874	75.7	87.1	88.5	73.0	71	76	84	70	N. 4	S.E. 10	..	7	
30	.909	.864	77.7	80.0	88.8	73.2	72	74	82	80	N. 5	N.E. 9	..	10	
31	.866	.834	77.1	85.7	87.0	72.2	71	75	82	68	N.E. 5	S. 6	2	10	0.20
Mean	29.903	29.878	76.7	83.9	87.9	73.2	72	74	84	74	ENE. 4.6	S.E. 12.6	5.2	9.5	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13.50

Rainfall considerably in excess of normal (3.60 inches) The total 13.50 inches for the month of August was exceeded only by August, 1879, when 13.83 inches fell. Intense local thunderstorm lasting for about 5½ hours on night of August 15th and 16th.

STATION—KINGSTON.

SEPTEMBER, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7	3	7	3	Max.	Min.	7	3	7	3	7	3	7	3	Ins.
	a.m.	p.m.	a.m.	p.m.			a.m.	p.m.	a.m.	p.m.	a.m.	p.m.	a.m.	p.m.	
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.845	.824	79.2	85.2	87.0	75.6	75	75	88	72	S.E. 5	S.E. 6	10	10	
2	.838	.823	76.7	85.2	87.7	72.8	72	75	84	72	E. 3	S.E. 12	..	10	
3	.879	.829	76.2	88.7	89.9	73.2	72	73	85	59	S.E. 7	S.E. 15	3	..	
4	.904	.855	77.2	87.8	89.0	75.3	69	73	78	61	N.E. 9	S.E. 20	10	3	
5	.901	.845	76.3	87.8	90.9	72.7	67	74	75	63	N. 9	S.E. 25	1	10	
6	.889	.841	76.7	88.4	89.0	74.1	72	78	84	73	N. 5	S.E. 12	7	10	0.22
7	.879	.870	75.6	81.4	87.7	73.4	72	74	89	79	N. 2	S.E. 17	10	10	0.55
8	.893	.889	73.2	77.2	85.9	72.2	71	75	95	93	N. 5	S.E. 6	10	10	0.10
9	.924	.878	74.6	76.2	84.3	72.7	71	75	89	95	N. 6	N. 4	10	10	0.22
10	.874	.810	72.8	85.7	85.8	69.4	69	76	88	72	N.W. 4	S. 3	10	10	2.00
11	.822	.795	74.7	83.0	85.2	71.6	74	74	96	76	N.E. 2	S.E. 6	10	10	
12	.850	.821	74.2	84.7	86.3	72.1	71	77	90	77	N.E. 2	S.E. 7	7	10	
13	.882	.846	75.7	85.9	87.5	72.3	72	76	86	72	W. 2	S.E. 12	..	10	
14	.860	.830	77.2	82.7	86.8	73.8	73	73	89	72	N. 2	E. 12	..	10	
15	.865	.859	76.1	75.2	81.3	72.8	72	74	89	95	E. 9	S.E. 15	10	10	0.95
16	.873	.884	74.7	79.1	80.6	71.1	73	76	93	90	S.E. 6	W. 7	10	10	2.43
17	.917	.940	72.2	77.2	84.5	69.9	71	74	97	91	N. 4	S.E. 12	10	10	0.98
18	.913	.847	73.2	84.7	88.0	69.1	71	70	95	63	N. 4	S.E. 15	10	10	0.10
19	.857	.820	72.9	76.7	78.0	71.7	71	75	93	93	N. 4	W. 4	10	10	0.95
20	.854	.834	73.2	84.4	85.2	72.3	72	73	97	70	E. 15	S.E. 15	10	10	
21	.856	.856	80.2	83.2	85.2	77.1	73	74	79	76	S.E. 15	S.E. 10	10	10	
22	.887	.870	75.2	79.8	85.3	72.2	72	74	90	82	W. 2	S.E. 12	..	10	0.28
23	.890	.872	72.0	83.7	86.7	69.3	71	75	94	73	N. 4	W. 3	..	4	0.01
24	.915	.841	73.6	87.3	88.3	70.7	70	70	88	69	N. 6	S. 14	8	7	
25	.872	.846	75.3	84.4	88.4	72.8	71	76	85	76	N. 3	S.E. 12	8	10	
26	.874	.848	73.5	86.4	87.0	71.8	69	74	88	67	N. 4	S. 6	..	10	
27	.859	.834	74.9	85.2	87.0	72.3	71	74	88	71	N. 5	S.E. 9	5	7	
28	.842	.789	75.4	81.6	86.4	73.1	71	77	88	85	N. 3	S.E. 10	..	10	0.05
29	.781	.729	74.0	80.7	85.2	71.7	70	75	88	83	E. 3	S.E. 15	..	10	
30	.735	.678	72.5	83.8	86.5	71.6	68	72	88	67	N. 6	S.E. 15	10	10	0.14
Mean	29.868	29.837	75.0	83.1	86.2	72.4	71	74	89	76	N.E. 5.2	S.E. 11.0	6.3	9.0	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8.98

Rainfall more than double the 60-year normal of 3.87 inches. Distant rain to north on 13 days, to N.E. 7 days, E. 1 day, S. 1 day, and N.W. 2 days, S.E. rainsquall on 7th, 8th, 9th, 16th and 19th. Heavy Sea to S. on 8th and 9th.

STATION—KINGSTON.

OCTOBER, 1933

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall. Ins.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.705	.701	75.3	77.7	78.7	73.7	72	74	91	89	S.E. 12	S.E. 5	10	10	2.15
2	.712	.673	75.4	76.2	78.8	71.0	71	72	85	87	S.E. 15	S.E. 20	10	10	1.72
3	.669	.651	74.2	77.7	77.9	73.8	71	76	90	93	S.E. 24	S. 10	10	10	3.42
4	.696	.680	79.7	75.9	80.6	72.6	75	74	84	93	S. 15	S.W. 18	10	10	0.83
5	.714	.717	78.0	83.7	84.2	75.3	75	76	92	76	S. 15	S.W. 18	10	10	0.13
6	.815	.808	78.1	80.3	85.6	75.9	75	77	91	90	E. 2	W. 2	7	10	0.22
7	.860	.833	75.2	80.7	86.2	72.9	74	75	95	83	Calm	N. 12	10	10	
8	.888	.834	75.7	85.9	86.2	73.8	74	75	94	70	W. 1	S. 6	10	3	0.07
9	.879	.873	76.4	79.5	87.3	73.5	72	75	88	86	N. 7	W. 6	10	10	
10	.890	.842	76.2	74.2	87.8	73.9	72	71	88	90	N. 4	N. 6	10	10	0.07
11	.909	.865	72.7	85.2	85.6	70.3	71	73	94	68	N. 1	S.E. 6	4	9	
12	.907	.859	75.0	80.7	88.0	71.2	71	75	86	81	N. 4	N. 6	10		
13	.878	.809	74.6	87.5	88.4	72.1	72	72	90	62	N. 3	S. 9	9		0.05
14	.865	.813	75.2	83.4	88.2	72.6	71	76	86	79	N. 4	W. 5	2	10	
15	.910	.836	74.9	86.0	88.2	72.9	71	76	87	72	N. 6	S. 20	3		
16	.933	.870	74.3	82.8	88.8	72.8	71	74	89	75	N. 4	E. 3	2	10	
17	.885	.836	74.0	84.7	87.7	71.1	68	74	82	70	N. 6	S.E. 4	10		
18	.865	.772	73.2	87.4	89.3	70.8	69	73	88	64	E. 3	S. 6	6		
19	.848	.776	75.2	89.9	90.0	74.3	72	70	91	51	S.E. 4	S.E. 20	2		0.11
20	.851	.832	76.2	83.5	89.0	74.6	72	71	86	68	E. 4	S.E. 12	1	10	0.08
21	.872	.818	74.7	84.2	86.0	72.9	73	71	94	64	S.E. 3	S.E. 15	10	10	
22	.849	.792	73.9	83.2	88.0	70.7	69	74	85	74	N. 5	S.E. 12	10		
23	.822	.750	73.6	85.7	86.6	70.9	69	74	87	67	N. 8	S.E. 8	5		
24	.803	.766	74.2	85.9	86.3	72.1	69	75	84	69	E. 3	S.E. 8	10	2	
25	.824	.777	74.3	84.8	85.9	71.8	70	75	88	72	E. 2	S. 6	10	10	0.07
26	.829	.769	74.2	85.7	86.2	73.1	72	75	95	68	N. 3	S.E. 8	8	7	0.04
27	.810	.753	74.7	77.9	85.8	73.8	73	75	92	92	E. 3	N. 5	10	10	0.36
28	.766	.703	72.7	73.4	75.4	72.3	72	73	97	99	W. 2	N. 3	10	10	5.33
29	.680	.638	73.2	75.9	76.2	71.1	73	75	100	97	S.E. 20	S.E. 26	10	10	3.26
30	.627	.606	77.7	81.8	83.0	74.3	76	75	93	78	S. 15	S.W. 18	10	10	0.01
31	.675	.608	74.0	85.2	86.5	72.3	72	76	96	75	S.W. 1	S.E. 5	7	10	0.06
Mean	29.814	29.770	75.1	82.1	85.2	72.7	72	74	90	77	S.E. 6.4	SSE. 9.0	6.2	8.6	
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17.98

Rainfall more than double the 60-year normal of 7.11 inches. Greater totals for month of October were recorded only in the years 1879, 1897 and 1905.

STATION—KINGSTON.

NOVEMBER, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Max.	Min.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Ins.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.675	.612	72.2	87.3	88.5	70.9	71	76	96	69	W. 2	S.W. 15	..	8	
2	.724	.713	74.7	80.0	85.1	72.4	72	76	90	86	N. 3	N. 4	8	10	0.04
3	.805	.741	73.2	83.2	85.3	70.8	70	72	90	72	N. 5	S.W. 10	..	10	
4	.776	.705	72.8	85.7	86.5	70.3	69	75	88	69	S.W. 2	S.W. 15	..	9	
5	.773	.722	71.6	84.6	85.4	69.7	69	73	90	67	N. 4	E. 10	..	10	1.60
6	.787	.748	70.2	83.7	86.9	68.0	69	73	95	70	N. 1	S. 5	..	8	0.02
7	.824	.811	73.4	81.8	85.4	71.2	70	73	90	75	N. 7	S.E. 17	10	10	0.01
8	.875	.832	73.7	83.7	85.8	70.1	70	72	88	68	N. 5	S. 6	10	7	
9	.909	.852	70.9	85.7	86.2	69.1	69	73	91	65	E. 2	N.W. 12	..	10	
10	.929	.843	72.2	82.2	86.2	70.4	70	71	92	60	N. 3	S. 7	..	..
11	.938	.860	71.9	86.9	87.2	70.0	70	72	91	62	N.W. 2	S. 8	..	..
12	.902	.831	73.2	83.3	86.0	70.7	71	75	92	77	E. 3	N. 12	..	5	
13	.876	.817	73.6	84.2	85.8	72.7	71	75	89	73	N. 7	S.W. 4	2	10	
14	.863	.805	75.0	83.7	86.7	73.0	72	76	90	78	N. 8	W. 5	10	10	
15	.876	.866	74.8	82.1	85.7	74.0	72	75	89	79	N.E. 4	S.E. 4	10	10	0.21
16	.968	.954	73.4	75.6	82.4	71.1	71	74	95	93	N. 8	N. 6	10	10	0.78
17	.981	.966	73.2	74.7	77.9	71.3	71	74	94	95	E. 5	S.E. 12	10	10	0.46
18	.937	.848	71.5	83.4	84.0	67.1	65	71	83	68	E. 3	S. 5	..	10	
19	.875	.842	70.4	80.4	84.9	68.8	68	70	91	73	N. 6	S.E. 9	..	10	
20	.927	.878	71.7	85.3	86.4	70.3	69	71	90	61	N. 6	S. 6	..	4	
21	.968	.923	72.2	86.2	86.6	69.1	68	71	88	62	N. 5	S.W. 5	4	2	
22	.934	.875	71.4	82.7	83.8	69.4	68	73	89	71	N. 4	S. 4	7	10	0.58
23	.938	.801	71.4	74.2	74.2	70.3	71	72	99	95	N.E. 5	S.W. 3	10	10	0.76
24	.891	.863	69.2	70.7	72.8	67.5	68	70	98	98	N. 6	E. 10	10	10	1.03
25	.863	.804	77.6	84.7	84.8	69.1	72	74	82	70	S.E. 15	S.E. 18	10	1	0.30
26	.897	.791	73.2	83.2	84.0	72.7	71	73	96	71	N. 5	S.E. 18	10	2	0.05
27	.885	.831	72.4	77.6	85.5	71.7	71	73	94	85	N. 5	N. 6	10	10	0.03
28	.911	.903	70.9	83.6	84.7	70.1	68	74	90	72	N. 5	N.E. 6	..	10	0.21
29	.961	.908	70.3	80.7	85.5	68.8	69	77	96	87	N. 2	N. 9	..	10	
30	.958	.915	72.9	81.7	85.8	71.5	70	76	91	82	N. 8	W. 4	10	10	0.01
Mean	29.880	29.829	72.5	82.2	84.5	70.4	70	73	91	74	N. 4.9	S. 8.2	4.7	7.9	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6.09

Rainfall more than twice the normal. Distant rain to northward on 15 days, to N.E. on 9 days and to eastward on 3 days.
Moderate local thunderstorms on 2 days moderate "Norther" on 12th.

STATION—KINGSTON.

DECEMBER, 1933.

Day.	Barometer 29 or 30 ins.		Air Temperature. Fah.				Dew Point.		Relative Hu- midity.		Wind Direction and Velocity.		Amount of Cloud.		Rain- fall.
	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Min.	Max.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	7 a.m.	3 p.m.	Inch.
	Ins.	Ins.	°	°	°	°	°	°	%	%					
1	.941	.926	73.7	79.9	80.9	71.8	72	75	94	85	N. 9	N.W. 3	10	10	
2	.948	.907	70.0	85.0	87.7	70.7	70	75	96	72	N.W. 2	E. 10	9	9	
3	.981	.914	74.2	85.2	86.4	71.1	70	67	89	54	W. 2	S.E. 20	10	4	
4	.994	.914	71.2	85.4	86.4	67.6	66	70	85	62	N. 2	S.E. 12	7	2	
5	.959	.878	71.2	84.0	86.5	67.8	67	70	86	64	N. 6	N.W. 6	9	1	
6	.898	.845	69.4	83.0	86.2	67.6	66	71	89	63	N. 3	S.E. 6	4	9	
7	.914	.875	68.7	83.3	85.3	67.8	65	68	87	62	N. 5	S. 4	3	10	
8	.934	.885	66.4	83.2	84.8	65.1	60	64	81	55	N. 5	S. 4	2	2	
9	.941	.872	64.2	85.7	86.4	63.1	55	65	74	49	N. 9	S. 6	4	4	
10	.935	.903	70.5	82.3	83.2	65.2	65	66	86	58	N. 10	S. 6	10	3	
11	.900	.956	69.0	84.6	85.5	67.2	55	72	88	64	N. 4	N. 12	10	3	
12	.017	.984	70.2	84.9	85.9	67.3	67	71	87	62	N. 6	S. 6	10	0.02	
13	.017	.947	78.3	84.0	85.0	67.1	77	70	96	62	W. 1	S. 6	10		
14	.996	.958	70.7	79.3	85.7	70.1	68	73	90	82	N. 5	S. 4	3	0.08	
15	.015	.984	70.0	82.4	84.4	69.3	68	72	92	70	N. 12	N. 3	10	4	0.01
16	.998	.956	69.0	84.4	85.8	67.9	67	69	96	60	W. 2	S.E. 12	6		
17	.014	.956	68.2	86.6	88.2	66.9	65	63	90	44	N.W. 2	S.E. 22	10	7	
18	.050	.994	72.0	86.4	87.0	70.1	70	60	91	42	N.E. 5	S.E. 15	10		
19	.036	.997	66.2	84.7	86.0	65.6	63	73	89	66	W. 3	S.E. 10	2	10	
20	.031	.958	71.0	82.2	82.9	68.1	66	69	86	66	N. 3	S.E. 12	9	6	
21	.982	.958	70.9	78.8	82.3	67.6	63	71	77	77	N. 4	N.W. 6	10	10	
22	.965	.921	71.2	82.0	82.7	71.0	68	70	89	67	W. 4	W. 4	10	10	
23	.976	.926	67.6	84.0	85.4	66.7	64	68	88	59	N. 6	S. 6	5	10	
24	.974	.920	69.4	83.2	86.7	68.5	64	72	84	70	N. 5	W. 4	10		
25	.983	.929	59.6	82.4	86.8	69.1	66	70	88	76	N. 5	N.W. 8	10		
26	.957	.892	68.2	81.6	86.2	67.7	64	70	87	67	N. 4	S.E. 12	9		
27	.972	.919	70.5	83.4	84.4	68.2	68	70	93	64	N. 3	S. 5	10	10	
28	.007	.987	72.2	68.7	84.6	68.7	66	68	81	99	N. 3	N. 6	10	1	0.65
29	.975	.909	68.2	82.2	83.7	66.2	66	69	93	65	N. 4	S. 5	10	10	
30	.955	.912	69.4	82.4	82.4	67.7	66	71	90	68	N. 3	S.W. 4	8	0.04	
31	.970	.954	69.0	75.1	84.9	68.1	66	71	91	89	N. 4	E. 2	4	0.10	
Mean	29.979	29.929	70.1	82.6	85.2	68.0	66	70	88	66	N. 4.5	S.S.E. 7.8	6.0	6.0	
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.80

Rainfall about three-fifths of normal. Distant rain to northward 8 days, to N.E., 5 days, and eastward 1 day. Moderate rain equal to S.E. on 28th.

Month	Air Temperatures. Fah.						Dew Point.		Relative Humidity,		Amount of Cloud.		Rainfall. Inches.		Weather No. of days of				Winds. No. of Observations.																	
	7 a.m.		8 p.m.		Mean		Absolute Max. and Min.		7 a.m.		8 p.m.		Mean		Max. Min.		Date.		Thunderstorm.		Rain.		Clear Sky.		Overcast.		Cal.		N. NE E. S.E. S. SW W. NW.							
																																			7 a.m.	
	Mean Pressure.	7 a.m.	8 p.m.	Mean	Max.	Min.	Date.	7 a.m.	8 p.m.	Mean	%	%	7 a.m.	8 p.m.	Mean	Max.	Min.	Date.	Thunderstorm.	Rain.	Clear Sky.	Overcast.	Cal.	N.	NE	E.	S.E.	S.	SW	W.	NW.	Cals				
Jan.	29.949	68.8	84.4	76.2	86.9	67.7	89.9	64.8	21	63	69	82	60	71	7.2	1.8	4.5	0.67	0.55	14	2	11	15	26	2	1	18	12	1	1	1					
Feb.	69.4	68.5	84.7	76.2	86.2	67.4	89.5	21	65.1	62	69	81	69	70	2.7	4.3	3.5	0.00	...	0	9	6	19	3	2	19	6	...	1	6	...					
Mar.	69.0	71.4	84.1	77.2	86.1	69.1	91.2	11	65.6	65	69	80	62	71	4.2	5.0	4.6	0.82	0.42	19	6	11	5	27	...	2	21	7	...	3	2	...				
April	69.7	74.8	85.2	76.9	86.9	70.7	92.3	18	67.7	66	70	75	62	68	1.9	3.92	9	0.05	0.04	29	2	14	2	15	3	2	35	3	1	1	...	...		
May	69.8	78.3	84.6	80.4	87.7	73.2	91.4	11	67.6	69	72	71	67	71	3.2	6.8	5.0	2.85	1.26	1	7	5	6	8	18	5	33	1	...	2	...	...		
June	69.9	77.8	84.4	80.2	87.3	73.5	91.2	30	70.2	72	74	73	84	72	78	5.5	7.2	6.31	1.83	4.27	5	1	14	2	10	...	4	6	4	42	...	2	2	...		
July	69.3	77.5	85.7	80.7	88.0	73.5	92.4	24	69.3	71	74	72	81	69	75	5.5	7.2	6.4	9.86	6.45	17	1	10	8	13	...	10	9	2	39	1	1	...	...
Aug.	69.2	76.7	83.9	79.9	87.9	73.2	90.8	12	69.7	72	74	73	84	74	79	7.3	9.5	8.4	13.50	11.60	15	3	11	1	15	...	12	19	1	25	4	...	1	...		
Sept.	69.4	75.0	83.1	78.7	86.2	72.4	90.9	5	69.1	71	74	73	89	76	82	6.3	9.0	7.6	8.98	2.43	16	...	14	1	15	...	16	4	5	26	3	...	5	1	...	
Oct.	69.5	75.1	82.1	76.3	85.2	72.7	90.0	19	70.3	72	74	73	90	77	84	6.2	8.6	7.4	17.98	5.33	28	1	18	2	14	...	17	...	7	19	9	4	5	...	1	...
Nov.	69.7	72.5	82.2	76.9	84.5	70.4	88.5	1	67.1	70	73	71	91	74	82	4.7	7.9	6.3	6.09	1.60	5	2	15	2	10	...	25	3	6	7	7	7	3	2	...	
Dec.	69.9	70.1	82.6	76.0	85.2	68.0	88.2	17	63.1	66	70	68	88	66	77	5.1	6.9	6.0	0.90	0.65	28	1	6	3	7	...	26	1	2	9	10	1	7	6	...	
Mean 29 910	73.9	83.9	86.4	78.3	86.4	70.9	90.5	...	67.5	68	72	70	83	68	75	5.0	6.5	5.7	...	...	...	9	105	69	118	...	205	63	39	263	63	14	28	23	2
Total	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

*And other days.

Barometer Pressure reduced to the Standards of National Physical Laboratory 32°, Gravity at Latitude 45° and to mean Sea Level. The 75th Meridian West of Greenwich Standard Time used. Altitude of Standard Barometer above Mean Sea Level 24ft. Height of Thermometer above ground 4ft. Height of Rain-gauge above ground 51 ft. Height of Anemometer above ground 69 ft.

NEORIL POINT LIGHT HOUSE, JAMAICA.—Mean Meteorological Results for the Year 1933. Latitude 18° 15' North. Longitude 78° 23' West.

Month	Air Temperatures. Fah.						Dew Point.		Relative Humidity.		Amount of Cloud.		Rainfall. Inches.		Weather. No. of days of				Wind. No. of Observations.														
	7 a.m.	3 p.m.	Means of		Absolute Max. and Min.		7 a.m.	3 p.m.	Mean	7 a.m.	3 p.m.	Mean	7 a.m.	3 p.m.	Thunderstorm.	Rain.	Clear Sky.	Overcast.	Gales.	N.	NE	E.	SE.	S.	SW	W.	NW.	Gales.					
			Max.	Min.	Max.	Min.																							Date.	Max.			
Jan.	70.9	82.7	76.1	85.0	67.8	88.5	4	68	74	71	89	74	81	2.0	5.5	3.7	1.70	1.09	23	7	11	2	10	25	4	6	7	3	1	4	2		
Feb.	70.2	82.6	75.9	85.1	67.9	89.9	23	66	73	69	88	70	79	2.8	6.4	4.6	0.16	0.06	15	3	6	1	8	20	6	5	10	2	1	4	..		
Mar.	71.5	81.6	76.2	84.6	68.9	88.4	27	70	74	72	92	77	85	3.5	7.1	5.3	8.56	2.43	17	1	14	3	4	11	20	3	13	6	1	1	5	2	
April	74.7	84.2	78.1	85.3	70.2	90.6	9	73	77	75	92	80	86	3.7	5.7	4.7	0.37	0.31	1	6	5	3	11	14	6	18	7	1	..	3	..		
May	75.3	83.4	76.5	86.1	72.2	89.0	2	74	76	75	86	80	83	6.8	7.7	7.3	2.62	0.70	11	3	13	8	1	22	6	14	7	5	1	5	1		
June	75.3	83.2	76.8	86.3	73.3	90.0	13	73	75	74	85	78	81	8.9	9.2	9.0	10.78	1.68	2	6	20	4	14	14	9	18	2	1	..	4	3		
July	78.2	84.4	80.2	87.2	73.5	93.7	23	72	75	74	83	76	80	8.1	9.0	8.6	4.34	2.83	1	7	13	12	4	21	9	15	7	2	1	3	..		
Aug.	77.4	83.8	79.9	87.5	73.1	89.9	8	73	76	74	87	78	82	8.4	9.3	8.8	11.94	3.57	1	11	20	7	7	19	9	16	4	4	..	2	1		
Sept.	77.0	82.3	76.2	86.5	73.2	89.6	29*	72	74	73	83	77	80	8.0	9.8	8.9	8.83	2.27	28	6	19	8	4	12	11	27	3	2	..	1	1		
Oct.	76.8	82.3	76.1	85.5	73.7	89.2	26	73	74	74	89	78	84	8.1	8.5	8.3	18.85	5.85	29	9	1	3	13	15	2	8	9	4	1	8	2		
Nov.	75.5	82.1	78.3	84.5	73.1	89.0	21	72	73	72	86	74	80	7.4	7.4	7.4	7.79	2.40	25	2	14	2	31	12	..	2	1	2	3	6	3		
Dec.	71.9	82.6	76.7	84.9	69.3	87.9	9	68	71	70	87	68	77	5.1	6.4	5.8	1.13	0.38	26	1	6	3	6	19	30	6	2	2	1	1	1		
Mean Totals	76.1	82.9	78.3	85.7	71.4	89.6	..	71	74	73	87	76	81	8.1	7.7	6.9	77.07	46	156	28	60	133	224	71	139	65	28	10	44	16	

* And other days.

Barometer Pressure reduced to the Standard of National Physical Laboratory 32°. Gravity at Latitude 45° and to Mean Sea Level. The 75th Meridian West of Greenwich Standard Time used. Altitude of Standard Barometer above Mean Sea Level 33 ft. Height of Thermometers above ground 4 ft. 6 ins. Height of Rain-gauge above ground 6 ft. 5 ins. Height of Anemometer above the ground 94 ft.

MORANT POINT LIGHT HOUSE, JAMAICA.—Mean Meteorological Results for the year 1888. Latitude 17° 55' North. Longitude 76° 12' West.

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Month	Mean Pressure.	Air Temperatures. Fah.						Dew Point.		Relative Humidity.		Amount of Cloud.			Rainfall. Inches.		Weather No. of days of				Winds. No. of Observations.													
		7 a.m.	3 p.m.	Mean	Means of			7 a.m.	3 p.m.	7 a.m. p.m.	3 p.m. p.m.	Mean	7 a.m. p.m.	3 p.m. p.m.	Total.	Max.	Thunderstorm.	Rain.	Clear Sky.	Overcast.	Gales.	N.	NE	E.	SE.	S.	SW.	W.	NW.	Cal.				
					Max.	Min.	Date.																											
																															Date.	Min.	Date.	
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°					
Jan.	29.991	76.5	81.0	77.3	82.0	73.5	82.9	16	62.0	28	70	71	70	71	70	71	70	71	70	71	70	71	70	71	70	71	70	71	70	71	70	71	70	71
Feb.	30.066	77.2	80.9	78.8	82.0	75.0	84.4	4	63.8	27	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	
Mar.	29.991	77.0	80.9	78.1	82.1	74.5	83.7	21	61.8	2	70	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	
April	.943	78.5	83.0	79.5	84.4	74.2	87.5	25	67.3	22	71	73	72	73	72	73	72	73	72	73	72	73	72	73	72	73	72	73	72	73	72	73	72	
May	.937	80.4	84.0	81.1	85.5	76.6	87.1	25	65.6	4	75	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	
June	.922	81.4	83.5	81.6	85.5	77.9	87.1	21	72.9	3	76	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	
July	.963	82.3	84.4	82.4	86.1	78.7	87.9	28	73.9	*8	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	
Aug.	.930	81.1	84.5	81.7	86.4	76.7	88.2	29	70.1	31	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	
Sept.	.894	81.2	82.8	80.9	85.4	76.3	88.1	25	72.0	17	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
Oct.	.831	79.4	81.5	79.8	84.3	75.9	87.5	9	71.6	2	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	
Nov.	.867	78.5	81.3	78.9	82.9	75.1	85.6	*4	69.8	5	73	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	
Dec.	30.001	78.6	80.9	78.9	82.4	75.8	84.2	3	63.5	9	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	71	
Mean Totals	29.943	79.3	82.4	79.9	84.1	75.8	86.2	...	67.9	...	73	74	73	74	73	74	73	74	73	74	73	74	73	74	73	74	73	74	73	74	73	74	73	
	

*And other days.

Barometer Pressure reduced to the Standard of National Physical Laboratory 32°. Gravity at Latitude 45° and to Mean Sea Level. The 75th Meridian West of Greenwich Standard Time used. Altitude of Standard Barometer above Mean Sea Level 8 ft. Height of Thermometers above ground 4 feet 6 ins. Height of Rain-gauge above ground 3 feet. Height of Anemometer above the ground 18 ft.

1933.

METEOROLOGICAL—JAMAICA.

CLIMATIC CONDITIONS—THE ISLAND.

Precipitation.

In preparing this summary of the monthly rainfall figures for the 12 months of the year 1933, it will be prefaced by stating that this period has witnessed the greatest record known in the history of weather conditions in this Island, at least, for the past 63 years. The year 1933 commenced with very little rain in each of the Divisions. The months of January, February and April, were below the normal, but each one of the remaining nine months, on the whole, gauged amounts greatly in excess of their averages. This abnormal precipitation was no doubt attributable to the phenomenal development of atmospheric disturbances in these waters, extending over a period from June to October, when, from warnings issued of tropical disturbances, there were as many as sixteen hurricanes or weather disturbances organizing within barometric range of Jamaica.

The following data concerning each month's rainfall for each Division or parish are given in detail:—

January. The precipitation was very deficient in each Division, particularly the northern. The general mean for the Island gave only about one-third of the normal. The heaviest of this poor rainfall appears to have been confined to the second fortnight. The greatest total fall for the month was 5.89 inches at Grange Hill in the Western Division, and the heaviest fall in 24 hours was 3.20 inches on the 23rd at the same place.

The mean number of rainy days was 5, the average being 8. The greatest number was 22 at Shrewsbury in the N.E. Division. No rain fell at the following Stations—Brandon Hill, Above Rocks, Glengoffe, Pear Tree Grove, Success, Rose Hall, Cinnamon Hill, Tryall, Running Gut, Spring Estate, Montego Bay, Anchovy, Blue Hole, Kew, Haughton Court, Linstead, Rock River, Croft's Hill, Kempshot, Bandon Pen and Glen Muir. For the most part, in the Northern Division, severe drought conditions certainly prevailed in St. Andrew, Trelawny, St. James, Hanover, Clarendon and St. Catherine.

February. More so than January, February had very little rainfall and gave a mean of only 0.48 inch out of a possible normal of 3.13 ins. The deficiency was experienced in each Division and the total shows the lowest recorded Island rainfall for any month for the past 63 years.

The greatest total fall for the month was 3.62 inches at Orange Vale in the N.E. Division, and the heaviest fall in 24 hours was 1.54 inch at Craighead in the West Central Division on the 5th. The mean number of rainy days was 3, the average being 7. The greatest number being 15 at Shrewsbury in the N.E. Division. No rain fell at 48 stations out of a total list of 219 places and 6 other stations had less than 0.05 inch. Drought conditions were acute throughout every parish. Kingston had a mean of only 0.02 inch and Portland the greatest mean of 1.77 inch.

March. The drought situation was somewhat relieved in this month when the mean rainfall exceeded the average in all the Divisions, except the West-Central. The greatest precipitation appeared to have occurred on the 4th, 20th, 30th, and 31st. The greatest total rainfall for the month was 28.32 inches at Millbank in the N.E. Division, and the heaviest fall in 24 hours was 10.02 inches at Mount Holstein in the same Division on 30th. The mean number of rainy days was 9, the average being 8. The greatest number was 26 at Barrett's Gap in the North-Eastern Division. No rain fell at Bull Bay in the Southern Division. The greatest parish rainfall was 12.33 inches in Portland in the North-Eastern Division.

April. Dry weather conditions again made their appearance during this month, when a mean of not more than 1.37 inch, as against the 60-year average of 4.77 inches was gauged. The deficiency was experienced in each Division, especially in the North Eastern. Most of this rainfall occurred during the first and last weeks of the month, particularly on the 1st and 29th. The greatest total fall for the month was 6.84 inches at Water Works Pen in the West Central Division, and the heaviest fall in 24 hours was 4.84 inches at the same station on the 1st. No rain fell at 15 stations, the mean number of rainy days was only 4 as against the average of 9. The greatest number was 11 at Haughton Hall in the Northern Division. The parish of Hanover showed the greatest mean fall of 2.66 ins., and the parish of Kingston the least, with only 0.08 inch for the month. Five parishes had less than one inch.

May.—Although below the normal the mean rainfall for the month was fairly well distributed in all the Divisions. The West-Central, however, had slightly over its average. The greatest precipitation occurred on the 14th and 15th and from the 27th to 31st. The greatest total fall for the month was 23.71 inches at Bethel Town District in the West-Central Division, and the heaviest fall in 24 hours was 4.70 inches at Mount James in the North-Eastern Division on 28th. No rain fell at one station. The mean number of rainy days was 11 or one less than the average. The greatest number was 23, at Bethel Town District. The greatest parish rainfall was 12.44 inches in Hanover.

The concluding months of the year, from June to December, have recorded phenomenal totals, much in excess of their 60-year averages, ranging from 50% to 180% above their respective normals.

June. The mean rainfall for the Island was much above the average in all Divisions showing 109% in excess. The heaviest falls occurred during the first week, particularly on the 4th and 5th, but the rainfall was well distributed, generally, the mean number of rainy days being 17, as compared with the average of

10. The greatest number was 27 at Port Antonio. The greatest total fall was 34.55 inches at Castleton Gardens in the North-Eastern Division, and the heaviest fall in 24 hours was 9.82 inches at Manchioneal on the 4th, in the same Division. St. Thomas gauged the greatest mean parish rainfall of 20.58 inches and St. Ann the least with 9.68 inches.

July. The mean rainfall was much above the average in each Division, shewing 140% in excess—or 11.44 inches as against the normal of 4.75 inches, representing the highest rainfall recorded in July for 63 years. Owing to the presence of Weather Disturbances in the Caribbean, which passed in the vicinity of this Island very heavy flood rains occurred on the 1st, and 17th, causing damage to roads and bridges, particularly in the parishes of Clarendon and Manchester. The precipitation was well distributed. There were 11 rainy days as against the average of 9. Moore Town with 22, had the most rainy days. The greatest total fall for the month was 35.21 inches at Moore Town in the North-Eastern Division, and the heaviest fall in 24 hours was 20.95 inches at Mocho in the West-Central Division. St. Thomas gauged the greatest mean parish rainfall of 18.52 inches and St. Mary, the least, with 6.65 inches.

August. The mean rainfall was very much above the average in each Division, shewing on the whole 109% in excess, or 14.49 inches as compared with the normal of 6.93 inches and was the highest recorded in August for 63 years. There were very heavy flood rains on the night of 15th-16th which caused unprecedented damages to roads and private property as well as loss of life, especially in Kingston, St. Andrew and St. Catherine. These flood rains occurred in all the Eastern and Central parishes so far west as Manchester, St. Ann and parts of Trelawny and St. Elizabeth. But the western parishes were not so affected. Altogether 165 stations reported heavy rainfall on those dates. It may be added that the distribution of flood rains during the night of the 15th and 16th August, so far as the four Divisions are concerned, is as follows:—The North-Eastern Divisions had a mean 9.20 inches derived from 57 stations. The Northern Division had a mean of 7.30 inches derived from 45 stations. The West-Central Division had a mean of only 4.50 inches, derived from 18 stations. Then the Southern Division shewed a mean of 8.90 inches from 46 stations. The greatest total fall for the month was 46.35 inches at Castleton in the North-Eastern Division and the heaviest fall in 24 hours was 20.32 inches at Dallas Castle in the same Division on the 15th. The mean number of rainy days was 16, the average for the month being 11. The greatest number was 27 at Hermitage in the North-Eastern Division, also at Cambridge in the West-Central Division. The greatest mean parish rainfall of 21.09 inches was in St. Andrew and the least 8.99 inches occurred in St. Elizabeth.

September. The Island mean rainfall was, for the fourth month, in succession, much above the average in all the Divisions, shewing 50% above the 60-year normal, or 11.91 inches, as against the normal of 7.94 inches. The greatest total fall for the month was 33.31 inches at Waireka, on the Long Mountain, in the Southern Division, and the heaviest fall in 24 hours was 8.75 inches at Clifton Hill in the West-Central Division on the 16th. The heaviest precipitation occurred in the latter half of the month, particularly on the 16th and 27th, but, generally, the rainfall was well distributed, the mean number of rainy days being 16, as compared with the average of 13. Haughton Court, in the Northern Division had most rainy days, 27, and many other stations had over 20 days.

The greatest mean parish rainfall of 19.81 inches was in Manchester, and the least 6.76 inches in St. Ann and Trelawny.

October. The mean monthly rainfall for the Island, 28.43 inches, was again much above the average, in all the Divisions, and is the highest mean recorded for any month during the past 63 years. (The next greatest in order is the month of November, 1912 when an average of 26.74 inches was recorded.) This is also the first occasion on which the mean rainfall has been exceeded in five consecutive months. Heavy flood rains, due to the proximity of weather disturbances, occurred during the first and the last few days of the month, particularly on the 2nd and 3rd, and the 28th and 29th—otherwise, the rainfall was well distributed, the mean number of rainy days was 17, the average being 14. The greatest number of rainy days was 26 at Wallingford, Catadupa and Bethel Town district, all in the West-Central Division, and a large number of other stations had over 20 days. The greatest total fall for the month was 69.81 inches at Cedarhurst in the North-Eastern Division, and the heaviest fall in 24 hours was 14.51 inches at the same station on the 3rd. The greatest mean parish rainfall was 37.03 inches in Manchester, followed by 36.32 inches in St. Andrew, the least being 18.61 inches in Hanover.

November. The mean monthly Island rainfall was 14.13 inches as against the 60-year normal of 8.29 inches, or about 70% in excess of the normal. The greatest total fall for the month was 60.36 inches at Moore Town in the North-Eastern Division, and the heaviest fall in 24 hours was 11.86 inches at Shrewsbury in the same Division on 15th. The heaviest precipitation appeared to have taken place on the 15th and 25th, but the rainfall, generally, was very well distributed, as the mean rainfall shewed 17 as against the average of 12. Cedarhurst and Hardware Gap, in the North-Eastern Division had most rainy days—29 each. The greatest mean parish rainfall was 37.54 inches in Portland, and the least was 6.02 inches in the parish of Kingston.

December. The mean monthly rainfall was, for the seventh consecutive month, above the average, which was exceeded in all the Divisions, except the West-Central, the mean being 8.53 inches as against the 60-year normal of 5.20 inches, shewing 64% in excess. The greatest total fall for the month was 70.46 inches at Balcarres in the North-Eastern Division, and the heaviest fall in 24 hours was 11.89 inches at Mount James, in the same Division on the 31st. The mean number of rainy days was 12, the average for the month being 9. The greatest number was 27 at Hope Bay in the North-Eastern Division. The greatest precipitation appeared to have occurred about the middle of the month and again towards the end, particularly on the 31st. The greatest mean parish rainfall was 29.44 inches in Portland, and the least, 1.37 inches in the parishes of Kingston and Westmoreland.

THE ISLAND RAINFALL FOR THE YEAR, 1933.

The total mean rainfall for the 12 months, derived from the four Divisions, comprising about 240 stations, was 116.53 inches as against the 60-year normal of 73.87 inches. The first half of the year gauged a mean total of 27.60 as against a possible normal of 30.37 inches. But the second half of the year gauged a mean total of 88.93 inches as against a possible normal of 43.27 inches. The year's total was therefore 42.66 inches above the normal, or about 58% above the average. The North-eastern Division was 55% above, the Northern Division about 60%, the West-Central Division about 44% and the Southern Division about 85%.

The mean number of rainy days for the year was 138, as against the 35-year normal of 122, representing a mean rainfall of 0.84 inch per rainy day. The months of June, October and November had the greatest number of rainy days, shewing 17, and February the least, with only 3. The parish of Portland gauged the greatest total annual rainfall of 183.94 inches. Then St. Thomas was next in order with 145.43 inches. The parish of Kingston had the least, with 78.46 inches.

This phenomenal high rainfall of 116.53 inches in the year 1933 is followed by 106.22 in the year 1916, and 104.95 inches in the year 1915.

A reproduction of the Table appearing in the Weather Report No. 686, for December, giving details of the Island rainfall in inches for the year 1933 is subjoined:—

Month.	Divisions.				The Island.		Rainy Days.	
	N.E.	N.	W.C.	S.	1933.	Average for 60 years.	Means for 1933.	Average for 35 years.
January	1.86	0.90	1.65	1.32	1.43	4.00	5	8
February	0.85	0.25	0.50	0.32	0.48	3.13	3	7
March	7.60	3.06	3.53	2.91	4.30	3.35	9	8
April	0.68	1.12	2.60	1.08	1.37	4.77	4	9
May	4.62	4.50	12.33	3.60	6.26	8.77	11	12
June	15.84	12.19	14.17	12.82	13.76	6.53	17	10
July	12.93	8.09	12.62	12.11	11.44	4.75	11	9
August	18.98	12.14	14.72	12.10	14.49	6.93	16	11
September	12.29	7.63	15.58	12.12	11.91	7.94	16	13
October	31.60	21.51	34.33	26.28	28.43	10.21	17	14
November	25.04	11.32	10.95	9.23	14.13	8.29	17	12
December	22.20	6.37	2.08	3.49	8.53	5.20	12	9
Total 1933	154.49	89.08	125.16	97.38	116.53	..	138	..
Total, 60-year average	99.75	55.65	87.50	51.64	..	73.87	..	122

WEATHER DISTURBANCES.

There was a general and consistently low barometric pressure prevailing in these waters during the years 1932 and 1933 which apparently culminated in the development of a series of hurricanes within barometric range of Jamaica, terminating with the disastrous hurricane over Western Jamaica on 29th October, 1933.

The following particulars cover but a brief reference to each of these disturbances, and the line of track given must be accepted as but approximate, as it usually occupies a year or over to co-ordinate the many reports received from vessels navigating this area and in the vicinity of these disturbances in order to delineate on the Pilot Charts of the U.S.A., the most likely course taken by each storm.

A brief summary of each month's records is subjoined. Fuller details may be derived by reference to the respective Weather Reports in the year 1933.

(1) *June-July.* On the 28th June Washington issued a Storm Warning as to the existence of a tropical disturbance of great intensity, and of small diameter, apparently moving north-westerly about 100 miles to the west of Port of Spain, Trinidad. This hurricane had passed over the southern region of Trinidad causing some loss of life and property. This storm proceeded in a north-westerly track in the southern Caribbean Sea and passed in the vicinity of Curacao on 28th June. It then coursed along to a distant point south of Kingston, Jamaica, during the evening of the 30th June continuing to move north-westerly and was about 125 miles to the south-west of Negril Point, Jamaica, on 1st July in the early morning and continued in its track in the vicinity of Grand Cayman Islands, during the night of 1st July—afterwards proceeding to the extreme western Cuba on the night of 2nd July. It traversed western Cuba and then moved into the Gulf of Mexico. At Morant Point, Jamaica, there was high North-East wind of from 30 to 40 miles per hour on 30th June, and it so continued at 40 miles per hour on 1st July. Flood rains occurred in many parts of Jamaica, causing material damage to property. At Grand Cayman some property losses were reported as occurring between the hours of 10 p.m. 1st July to Sunday 2nd, 4 a.m., some minor loss to shipping added to the disaster.

(2) Washington reported on 14th July the existence of a tropical disturbance of slight intensity, central near to the Island of St. Kitts, Leeward Islands, apparently moving north-north-westward. This disturbance passed to the south of Porto Rico during the night of the 14th, then to the south of Santo Domingo in the evening of the 15th, somewhat westerly in its course. When nearing Jamaica the course deflected in a west-north-westward direction. The centre was estimated to be a short distance to the north

of Port Antonio, Jamaica, during the afternoon of the 16th. After proceeding in this course it was located near to Campeche, Yucatan, on the 18th July, finally following a north-west track into the Gulf of Mexico. Copious rain fell in Jamaica and roads and bridges met with material damage. The lowest barometric reading at Kingston was 0.15 of an inch below the normal on 15th at 11 p.m.

(3) On the 26th July a weather disturbance of slight intensity, moving west-north-westward appeared to the north of Guadeloupe, between the Islands of St. Kitts and St. Martin. It was near north of St. Juan, Porto Rico, on 26th in the forenoon, passing to the south of Turks Island (and to north of Santo Domingo) on the 27th in the forenoon, causing wind of gale force from south-east. This storm then changed its direction somewhat to north-west, and was to the south of the Great Abaco Island on the 29th, proceeding towards Florida State, U.S.A., near to Palm Beach, on 30th, eventually traversing Florida into the Gulf of Mexico on the 1st August. The lowest barometer reading at Kingston was 0.100 inch below the normal, on 27th at 7 a.m.

(4) *August.* In the afternoon of the 15th August a weather disturbance of slight to moderate intensity, apparently developed to the south-southeast of Jamaica. At about midnight it was located about 200 miles to the southward of Kingston. It moved in a west-north-westward course towards the western end of Cuba, on the 18th, then it continued on its track towards the north westward, until it passed to the north west of Key West (U.S.A.) on 19th and finally along the western coast of Southern Florida. Great flood rains were experienced in Jamaica on the night of the 15th-16th August, particularly so in the parishes of Kingston and St. Andrew, as well as in the adjoining parishes. From the inundation caused to water courses, gullies, etc., in Kingston and St. Andrew, over 50 persons perished by drowning. There was also considerable damage to property, owing to the very exceptional flooding of the water courses and numerous small habitations were swept away.

(5) A weather disturbance developed to the north of the Island of Trinidad on 17th August, moving in a west-north-westerly course, passing to the south of Jamaica on the 20th, then continued further to the west-north-west until the 21st, when it was no longer identified. Flood rains were experienced in Trinidad.

(6) On the 17th August another weather disturbance was reported as developing in Lat. 18° North and Long. 50° west, of considerable intensity. It proceeded on a track somewhat west-north-westerly until the 19th, and north-westerly on 22nd August, when, finally it arrived along the eastern coast line of the United States, near to Cape Hatteras on 22nd, occasioning immense loss of property and some lives.

(7) A tropical disturbance was located some distance to the north of Porto Rico on 26th. It kept coursing in a north-westerly direction towards the eastern Florida Coast of U.S.A. causing some damage.

(8) On the 27th August, 10 p.m., a tropical disturbance of minor intensity developed to the south of Campeche, western coast of Yucatan. It moved north-westerly about 300 miles to east of Tampico on 28th eventually entering the coast line near to Corpus Christi, Texas, U.S.A., early in September.

(9) A tropical disturbance was located about 200 miles to the east-north-east of Porto Rico on the 29th August, of considerable intensity. This storm moved in a west-north-westerly direction, coursing along and near to the northern coast of Cuba, increasing to hurricane force near to Havana, Cuba, on the 1st September. It then continued in the same direction into the Gulf of Mexico, causing loss of life and property, along its track over the north coast region of Cuba.

September. The weather disturbance mentioned above as having developed on 29th August, passing near to Havana, Cuba on 1st, September of near hurricane force, proceeded on a track somewhat westerly until it was reported passing near to Brownsville, and Corpus Christi (Texas, U.S.A.) on 4th September. Much destruction was experienced in the State of Texas.

(10) On the 1st September a weather disturbance was located to the north-east of San Juan, Porto Rico. It moved in a west-north-westerly course, passing Turks Island on the night of the 2nd September, changing north-westerly, until it entered the eastern coast of Southern Florida (U.S.A.) on the 4th in the afternoon, changing again to north-north-west, entering the State of Georgia (U.S.A.) on 5th. Then it curved to the north-north-eastward. Extensive damages were reported.

(11) On the 10th September at 10 p.m. a weather disturbance was reported about 450 miles to the north-east of Porto Rico. It moved in a somewhat north-westerly course, when it eventually entered the eastern coast line of the United States to the southwest of Hatteras. Considerable damage was reported.

(12) A tropical disturbance was reported on the 11th September to the north-east of Belize, British Honduras, moving slowly. On the 13th at 10 a.m. it entered the Yucatan Peninsula, then on the 14th it passed to the south of Campeche, and over the south western region of the Gulf of Mexico, passing near to Tampico, Mexico, on the 15th September, causing great destruction to property.

(13) About a week after the preceding storm, another weather disturbance developed to the south-south-east of Jamaica, on the 19th September. It followed a west-north-westerly course for some distance, entered the northern section of the Yucatan Peninsula on the 21st emerging on the western coast. It traversed the Gulf of Mexico (S.W.), and Tampico, Mexico, again experienced a severe storm, on or about the 24th at 10 p.m., causing great destruction. Heavy rains fell in Jamaica from the 16th to 19th September.

(14) *October.* On the 1st October a weather disturbance was located to the south of Jamaica, moving west-north-westward. The Kingston barometer at 7 a.m. of that date, indicated 29.69 inches, or 0.12 of an inch below the normal. At the same hour the barometer reading at Negril Point shewed 29.68 inches, or 0.13 inch below the normal. This disturbance apparently coursed north-westerly, for on the 2nd the Negril Point pressure fell to 29.63 inches. Reports of south-easterly rainsqualls, with heavy sea-swell from the south were telegraphed from Negril. This disturbance, on the 2nd was estimated to be to the south-west of Negril Point, moving around the westward of that place, and curving towards Cuba. There was, evidently, a low barometric pressure over the entire Caribbean Sea, from the 29th September, but no definite centre could be located until the 2nd from local determinations. The U. S. Weather Bureau later on estimated it to be increasing in intensity with its centre about 150 to 200 miles to the W.S.W. of Negril Point, moving slowly to northward, attended by gales. This storm coursed around to west of Negril on 2nd, and was reported on the 3rd and 4th October to have crossed over western Cuba, passing a little to the east of Havana, on the 4th at about noon, causing some damage. It proceeded then in a north-eastward course, and passed near to the south-eastern coast of Florida, U.S.A., on the 5th., thence to the Bahama Islands, and ended in the vicinity of Halifax (N.S.) on the 8th. Heavy rainfall was experienced throughout

Jamaica from the 1st to 4th October. South-easterly gales were reported at Negril on the 2nd recording 48 miles per hour at about 8.30 a.m. The barometric pressure at Negril Point on the 3rd at 4 a.m. showed 29.547 inches, representing a fall of 0.322 inch below the normal. No serious damage was occasioned in Jamaica, beyond some losses to cultivated areas in the vicinity of the storm centre.

(15) On the 2nd October (at the same time as the existence of the above disturbance) the United States Weather Bureau issued a warning to the effect that another disturbance, of slight intensity was located a short distance to the north-north-west of Turks Island, apparently moving north-north-eastward, with increasing intensity. This storm eventually continued into the North Atlantic Ocean.

(16) Hurricane of Sunday 29th October. During the early hours of Saturday 28th October, local observations pointed to the existence of a weather disturbance, developing to the southeast of Jamaica, moving to the west-north-westward. Warnings were promptly despatched to all the Island Telegraph Stations. This weather disturbance moved west-north-westward and then north-westerly. At about 6 p.m. on Saturday 28th, it was located to the south of Kingston, for a vessel passed near its centre about 100 or 120 miles to the south of Kingston. There was a heavy sea-swell immediately south of Kingston. This disturbance apparently increased to hurricane force during the night of the 28th. Then at about 8 a.m. on the 29th the centre passed near to Great Pedro Bluff (St. Elizabeth) to seaward, near south of Black River, and curving around the westward of the town of Sav.-la-Mar at about noon on Sunday 29th. As it moved in an acute curve in changing its course by Sav.-la-Mar, the centre was retarded in its progress by some 2 hours. The centre then took a north-easterly course across western Jamaica in the direction of Round Hill (in Hanover) and emerged near to the north of the Great River, moving out to sea a few miles to westward of Montego Bay. It continued north-eastward to a point 30 miles to the west of Santiago de Cuba on 31st, traversed Cuba in a N.W. direction to a point a short distance to the west of the town of Nuevitas, north coast of Cuba on 1st November. Finally following a somewhat sinuous course, in the sea across the Great Bahama Bank, until it arrived near to the south of Andros Island of the Bahama Group, on the 4th November.

The intensity of the storm, after crossing western Jamaica, diminished somewhat, for during the time of traversing Cuba, overland, along a track of about 200 miles, so far as Nuevitas, the wind became moderate in force, but with heavy rainfall. After egress from Cuba, it gradually recovered strength, until it reached Andros Island, Bahamas, on 4th November.

The regions in Jamaica situated within a radius of 10 to 15 miles distant from the storm track suffered severely. Buildings such as the St. Mary's Church Rectory (St. Elizabeth) were badly damaged, and a large percentage of habitations of the peasantry, at Southfield, were swept away and thousands of persons rendered homeless for a time. Cultivations, also, met severe losses. From Sav.-la-Mar to the north coast, the damages sustained by buildings were somewhat less in extent. The Sav.-la-Mar Church and Church Hall, as well as St. Paul's Rectory, Little London, suffered. Several other buildings in Black River and Sav.-la-Mar were partly shattered. In the parish of Hanover quite an appreciable amount of destruction to property occurred in the districts of Chigwell and Hopewell. Inundated areas, arising from the heavy rainfall added, otherwise, to the havoc occasioned by the high winds. Banana losses were reported as 100 per cent., near to the storm centre, diminishing to about 10 per cent. in the far off cultivations, such as are situated in the parish of St. Mary, 70 miles distant to the eastward. Some large trees were uprooted in the vicinity of the hurricane track. There were six deaths reported in the Southfield district of St. Elizabeth; three seamen lost their lives by the sinking of a small vessel near to the town of Black River.

For obtaining further details, relating to the many weather disturbances coursing in the Central American and Caribbean waters, reference is directed to the Jamaica Weather Reports Nos. 678, 679, 681 and 685.

THUNDERSTORMS.

At Kingston, distant thunderstorms were observed occasionally during the months from July to December. Local thunderstorms occurred in June (1), July (2), August (4), September (3), October (1), November (2) and December (2). At Negril Point, distant thunderstorms noted in January, March to December—local thunderstorms in March (1), May (3), June (6), July (7), August (11), September (6), October (9), November (2) and December (1).

At Morant Point—thunderstorms noted in June (1), July (2), August (1), September (1), and October (2). The figures in brackets give the number of local thunderstorms.

NORTHERS.

At Kingston moderate Northers in November. At Morant Point moderate on three days in November and one day in December.

HAILSTORMS.

Heavy hail fell on May 12 at Linstead, Bandon Pen, The Bog, Bethel Town, Water Works Pen, and Mount Edgecombe. Intense hail fell on September 5th at Kempshot.

EARTHQUAKES.

A slight shock was felt at Kingston on May 2nd, also at Claremont, St. Ann, on same date. An intense shock felt on May 12th throughout the Island. Another sharp shock felt on June 29th at 8.44 a.m. nearly throughout the Island. A slight shock felt at Mandeville on February 9th, also at Kingston on September 7th, and at Clifton Hill, Spring Garden, Orange Vale and Mount Holstein on 29th and 30th October. No shocks were reported in January, March, April, July, August, November and December.

YEAR 1933.

METEOROLOGICAL RESULTS.

CITY OF KINGSTON.

The mean barometric pressure for 7 a.m. was 29.922 ins., and for the 3 p.m. 29.877 ins. By applying the corrections for the diurnal variation to each, a mean of 29.910 is derived, which is 0.022 inch below the 33-year normal of 29.932 ins.

The year 1933 has shewn, consistently, for each month, with the exception of February and December, a barometric pressure below the normal as tabulated below:—

		Inch.			Inch.
January	—	0.025	July	—	0.027
February	+	0.013	August	—	0.027
March	—	0.015	September	—	0.025
April	—	0.034	October	—	0.061
May	—	0.012	November	—	0.025
June	—	0.043	December	+	0.027

These figures give a mean for the whole year 1933, of 0.022 inch below that of the 33-year normal. The rainfall for February and December being so very deficient, evidently increased the barometric pressure. There were marked departures in June of 0.043, and in October of 0.061 inch; the heaviest rains were recorded during these two months.

Almost similar barometric conditions prevailed in the years 1931 and 1932.

The month of February recorded the highest mean pressure of 29.994 ins., and October, the lowest mean of 29.804 ins., owing to weather disturbance appearing to the south of Jamaica during the early days of the month, also to the hurricane crossing western Jamaica on 29th October.

The mean annual temperature, based upon four observations per day, was 78.3 degs., or 0.4 deg. below the 33-year normal of 78.7 degs. The highest maximum temperature was 92.3 degs. on April 13th, and the lowest minimum temperature 63.1 degs. on December 9th. The greatest monthly extreme range was 25.6 degs. in March, and the lowest range 19.7 degs. in October. The mean monthly extreme range was 23.0 degs. or 0.2 deg. greater than the year previous.

The anemometer records shew a mean total miles of wind per day of 177, as compared with the 20-year normal of 182. The months of February, April and October were above the normals. The months of January, June, August, September, November and December were below, and the months of May and July registered normals. The maximum mean of 227 miles occurred in July, and minimum mean of 125 occurred in November.

The mean relative humidity for the 7 a.m. observations was 83%, which shews one per cent. above the normal of 82%, and the 3 p.m. shews 68%, the normal being 69%. The general mean for the year gives 79%, which corresponds with the 33-year normal of 79%.

NEGRIL POINT LIGHT HOUSE.

The extreme maximum temperature was 93.7 degs. on 30th July, and the extreme minimum temperature was 62.9 degs. on 23rd February. The greatest range was 27.0 degs. in February and the least range 18.7 degs. in October. The greatest monthly rainfall was 18.85 inches in October, owing to the hurricane over western parishes on 29th October, and the least was 0.16 inch in February. The total number of rainy days for the year was 156. October had 21 days, and February only 3. The year's rainfall shewed a total of 77.67 ins., which is nearly 50% above the normal.

MORANT POINT LIGHT HOUSE.

The extreme maximum temperature was 88.2 degs. on 29th August, and the extreme minimum was 61.8 degs., on 2nd March. The greatest monthly rainfall was 23.97 ins. in October, coincident with the time of the October hurricane; and the least rainfall was 1.23 inch in March. The year's rainfall total was 94.59 inches, as against the 60-year normal of 66.67 ins., or nearly 50% above the normal. Excessive rainfalls were recorded from June to November, in each of these six months; the amount was much above the normal. There were 193 rainy days, giving an average of 0.48 inch per rainy day.